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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/554,232

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EXAMINER

TANG, SON M

ART UNIT

PAPER NUMBER

2612

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/554,232	Applicant(s) SUZUKI ET AL.	
	Examiner SON M. TANG	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/24/05, 6/2/06, 10/5/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims **1-38** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In the claims whereby the claimed “A tag” alone is not represents a radio frequency integrate circuit (IC) tag, however, for the purpose of examination, Examiner assumed it is an RFID tag. Applicant needs to define for of “a tag”

3. Claim **20** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claimed "wherein said detachable portion and the portion of the tag *other* than said detachable portion have respective memory regions" It is unclear of which portion have a memory region.

4. Claim **13** is recites the limitation "the first memory portion" in line 3 and “the second memory portion” in line 5. There are insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims **1, 17-23, 21, 25-30, 32 and 38** are rejected under 35 U.S.C. 102(e) as being anticipated by **Forster et al.** [US 7,477,151; **Forster**].

Regarding claim 1: Forster discloses an RFID tag (10) comprising at least one detachable portion A (14) having a first function in a state (long range communication) where said portion (14) remains attached, and shifting (altering) to a second function (short range communication) different from said first function when said portion (14) is detached [see Fig. 1, col. 7, lines 10-44].

Regarding claim 17: Forster discloses an RFID tag (10) of Fig. 1 comprises a physically detachable portion (14), wherein, the RFID tag is inherently laminated in layers in order to protect all the RFID tag's component from damage [as cited at col. 8, lines 5-38].

Regarding claim 18: Forster discloses an RFID tag (10) comprises at least one physically detachable portion (14), wherein the detachable portion (14) and a portion of the tag (12) other than said detachable portion have visually different characteristic features (e.g. antenna 42 and IC circuit 24) see Fig. 1.

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Regarding claim 19: Forster discloses an RFID tag (10) comprises at least one physically detachable portion (14), wherein the detachable portion (14) and a portion of the tag (12) other than said detachable portion have visually different characteristic configurations (e.g. antenna 42 and IC circuit 24 and terminals 26, 28) see Fig. 1.

Regarding claim 21: Forster discloses an RFID tag (10) comprises 1 detachable portion (14), wherein only a portion of the tag (12) which finally remains after detachment of the detachable portion (14) is provided with a control portion for controlling the other portion of the tag (e.g. portions 26 and 28) for receiving RF energy [see Fig. 1, col. 6, lines 22-67].

Regarding claim 22: Forster discloses an RFID tag (10) inherently comprises a substrate having an electronic component (24), at least one detachable portion A (14), having a first function (e.g. long range detection), and shifting to a second function (e.g. short range detection) different from said first function when said portion A is detached, said substrate comprising, at least one physically detachable portion (14) [see Fig. 1-2].

Regarding claim 23: Forster's RFID tag comprises an IC chip (24) which inherently includes an transceiver for receiving and transmitting between itself and a reader, a control portion (e.g. processor) which performs a control operation for reading data from said tag, and a memory portion which stores data therein [see Fig. 1].

Regarding claims 25-26: Forster further discloses the severing line (68) for physically separating process can be a perforation line, which constitutes of a plurality of holes are bored therein [see col. 10, lines 30-38].

Regarding claim 27: Forster discloses a conductive line (antenna 42) is extending in a direction intersecting with the perforation line (68) of Fig. 8, for transmitting/receiving signal

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from the reader, which constitutes of a signal line as claimed.

Regarding claim 28: Forster discloses a package (52) for covering a substrate (40) from outside thereof, said substrate having an electronic component (22) mounted thereon to operate a tag comprising at least on detachable portion (14), having first function (e.g. long range detection) while said portion (14) remain attached, and shifting to a second function (e.g. short range detection) different from said first function when said portion (14) is detached, said package comprising, at least one physically detachable portion (met by portion 14) [see Figs. 3-4, col. 7, lines 45-60].

Regarding claims 29-30: Forster further discloses the severing line (68) for physically separating process can be a perforation line, which constitutes of a plurality of holes are bored therein [see col. 10, lines 30-38].

Regarding claim 32: Forster discloses an RFID tag (10) comprising, a substrate (40) having an electronic component (22) mounted thereon to operate a tag comprising at least on detachable portion (14), having first function (e.g. long range detection) while said portion (14) remain attached, and shifting to a second function (e.g. short range detection) different from said first function when said portion (14) is detached, said package comprising, at least one physically detachable portion (met by portion 14) [see Figs. 3-4, col. 7, lines 45-60].

Regarding claim 38: The claimed " a reader/writer device which reads data from said tag" is inherently included in the RFID system for reading information from the RFID tag.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

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obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 31 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Forster et al.

Regarding claim 2: Forster et al. further disclosed that detached portion (14) would change the characteristic of the RFID device (e.g. frequency changing). Therefore, it would have been obvious to one having ordinary skill in art; to recognize that the attached portion (14) having a function of suppressing said second function (such as, operating energy and frequency).

Regarding claim 31: Forster discloses all the limitations as described above, except for not specifically shows that the perforation holes are not penetrating said package. However, Forster shows that the perforation line (46) with plurality holes are penetrated through the RFID device (10), which is a separate piece from the package (label 52), as shown in [Figs. 1-3]. Therefore, it is obvious to one having ordinary skill in the art would recognize that the plurality holes are not penetrating the label.

Regarding claim 20: Forster discloses the RFID tag's chip other than said detachable portion (14) is inherently includes a memory which data can be written/read individually, but does not specifically mention that the memory have respective memory regions. Since, the memory device comprises a plurality of registers which used to store different information that relation to the product (e.g. product name, manufacture, size etc.). Therefore, one having ordinary skill in the art would found it obvious to recognize that the memory device having a plurality of memory regions for storing different type of data as user desired.

9. Claims **8-16 and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Forster et al.** in view of **Humomo** [US 2004/0263319].

Regarding claim 8: Forster et al. disclosed that RFID tag is altering the operation characteristic after detached a portion of the tag above, except for not specifically mention that the tag comprises method of attaching and writing first data related to a process of manufacturing to merchandise, and detaching at a stage of selling the merchandise and writing second data related to a process of selling in a remaining portion of the tag after the detachment. **Humomo** teaches an RFID tag (200) of Fig. 2, comprises plurality of memory regions (e.g. M1, M2) for storing data information related to the product during the supply chain as shown in Fig. 1, wherein, memory (M1) is being written at the manufacture stage (100) and memory (M1) is being disconnected (disabled) from the RFID tag at the point of sale (104) stage, and a second data information is being written into the remain memory (M2) [see paragraphs 0030-0032 and 0042]. Since, Forster et al. taught that detaching antenna portion (14) would alter the operating characteristic of the tag, while Humomo suggested that disconnected antenna portion (202) would disable first memory (M1) and be able to write new information in the second memory portion (M2). One ordinary skill artisan would found it obvious to use more than one memory and being able to store new data in the same RFID tag as suggested by Humomo, for the benefit of updating new information during the supply chain.

Regarding claim 9: Forster and Humomo made of obvious above, Humomo further shows that the RFID tag is illustrated supply chain which started at manufacturing stage (100) to stage (108) or more [see Fig. 1, paragraphs 0029-0030], which constitutes of the RFID tag

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contains information related to the object (e.g. identification, manufacture, store or point of sale and etc.).

Regarding claim 10: Forster and Humomo made obvious above, Humomo further shows first device (memory M1) used at a stage of manufacturing merchandise which stored merchandise information (e.g. ID, UPC or EPC) at the product logistics stage (102) and a second device met by a second memory (M2) which used for storing information related to the product at point of sale as shown in Fig. 1. It is constituted of a first device used at a stage of manufacturing for write first data and a second device used at the point of sale for write a second data in a remaining portion of the tag.

Regarding claim 11: Humomo further teaches a management device (met by processor 204) for associating said first and second devices (M1 and M2) with each other.

Regarding claim 12: The claimed limitations are interpreted and rejected as same as limitations of claim 8 above, in which the method and tag used at service stage is analogous to the method and tag used for merchandise chain.

Regarding claim 13: Forster and Humomo made obvious above, except for not specifically mention that the first function is a function of performing at least writing of data to the first memory portion and second function is a function of at least writing a data to the second memory in said remaining portion. However, Humomo shows that after the first memory stored information relation to the merchandise at the manufacturing stage and after the processor (204) disconnected the first memory portion from the tag, the remaining second memory is being able to write new data into the remaining memory of the tag. In that, one having ordinary skill in the art would recognize that write the first data in the first memory is the first function at the

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manufacture stage and write the second data in the second memory at the point of sale is the second function.

Regarding claim 14: The claimed limitations are interpreted and rejected as same as limitations of claim 8 above, in which the tag detached part is constitutes of the detached/disconnected antenna.

Regarding claim 15: The claimed limitations are interpreted and rejected as same as limitations of claim 9 above.

Regarding claim 16: As Forster and Humomo made obvious of tag detachment/disconnection at the supply chain above, but does not specifically mention that the tag ID is a key for comparison therebetween. Each RFID tag has unique tag identification (ID), which used to track the tag throughout the supply chain. Therefore, it is obvious to one ordinary skill artisan that tag ID is the key information for comparison at any tracking chain.

Regarding claim 33: Forster discloses all the limitations above, Forster shows the RFID tag's chip (24) which inherently included an input/output interface for performing transmission/reception and modulation/demodulation of a data signal, a control portion (e.g. processor, controller) for specifying a memory region from which data to be outputted (e.g. object identification, name of the object) that stored in one of the memory register (region), and the detached of portion (14) is altered the data reading range, Forster does not specifically mention that the RFID tag's processor is specifying a memory region to be read based on the detachment of portion (14). Humomo teaches a detachment portion (e.g. antenna 202) which is controlled by the processor (204) and also alters the reading memory region (e.g. M1 or M2) and reading range (e.g. long or short) based on whether or not the disconnection of antenna portion

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(202) [see Fig. 2]. It would have been obvious of one having ordinary skill in the art at the time the invention was made to have a controller that be able to control the reading data as suggested by Humomo, so that only certain information can be read depending on the environment of the tag.

Allowable Subject Matter

10. Claims **3-7, 13, 24 and 34-37** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Soehnlen [US 2002/0067264], Gustafson [US 6,050,622] and Baldwin [US 5,884,425].

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SON M. TANG whose telephone number is (571)272-2962. The examiner can normally be reached on 5/8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. M. T./
Examiner, Art Unit 2612

/Daniel Wu/
Supervisory Patent Examiner, Art Unit 2612